

12/27/00

#4

DATE: 12/27/2010

TIME: 13:41:04

Output Set: N:\CEP\1\12272000\1622439.raw

5 120. TITLE OF INVENTION: A novel G protein coupled receptor protein

ENTERED

C--> 10 <141> CURRENT FILING DATE: 2000-08-17

13 01570 PRICE ESTIMING DATE: 1998-03-13

16 - 1512 PRIOR FILING DATE: 1999-03-03

IN - 1692 NUMBER OF SEQ TO NOS - 26
IN - 3740 - COLUMBIANA - D. 1904 - 5 - 11 - 1

2. 2102 SEQ ID NO: 1

24 - 2127 TYPE: DNA

27 2205 FEATURE;

2222 LOCATION: (1) .. (1725)

14 011003 SEQUENCE: 1

33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48.

| | | | | |
|----|------|------|------|------|
| 16 | 1 | 5 | 10 | 15 |
| 17 | 2000 | 2000 | 2000 | 2000 |

18 Ala Leu Gly Leu Lys Leu Ala Thr Leu Ser Leu Leu Leu Cys Val Ser

41 cta gcc ggc aac gtg ctg ttc acg ctg ctg atc gtg cgg gag cgc aac 114

| | | | |
|-----|----|----|----|
| 1.4 | 35 | 40 | 45 |
|-----|----|----|----|

46 Leu His Arg Ala Pro Tyr Tyr Leu Leu Leu Asp Leu Cys Leu Ala Asp

15 ggg cgg cgc ggc ctc gcc tac atc cca acc gtc ata cta gaa gaa gaa 34

50 Gly Leu Arg Ala Leu Ala Cys Leu Pro Ala Val Met Leu Ala Ala Arg
51 55 60 65 70 75 80

[illegible]

| | | | |
|----|----|----|----|
| 75 | 85 | 90 | 95 |
|----|----|----|----|

58 Leu Leu Ala Phe Leu Ala Ala Leu Phe Cys Phe His Ala Ala Phe Leu

61 ctg ctg ggc gtc ggc gtc acc cgc tac ctg gcc atc gcc cgc cgc cgc 381

| | | | |
|------|-----|-----|-----|
| 1993 | 116 | 120 | 125 |
|------|-----|-----|-----|

60 Phe Tyr Ala Glu Arg Leu Ala Gly Trp Pro Cys Ala Ala Met Leu Val
 120

139 140

RAW SEQUENCE LISTING

PATENT APPLICATION: RS/09/622,439

DATE: 12/27/2000

TIME: 13:41:01

Input Set : A:\Y04-12-1.app

Output Set: N:\CRF3\12272000\1622439.raw

```

69  tgc gcc acc tgg gcc ctg gcc gcc gcc gcc ttc acc cca gtc ctg 480
70  Cys Ala Ala Trp Ala Leu Ala Leu Ala Ala Ala Phe Pro Pro Val Leu
71  145 150 155 160
72  gcc gcc ggt gcc gcc gcc gcc gcc gcc tgc acc ctg gag cag cgt 528
73  Asp Gly Gly Asp Asp Glu Asp Ala Pro Cys Ala Leu Glu Gln Arg
74  165 170 175
75  gcc gcc gcc gcc gcc gcc gcc ctg gcc ctg ctg ctg ctg gcc ctg 576
76  Pro Asp Gly Ala Pro Gly Ala Leu Gly Phe Leu Leu Leu Leu Ala Val
77  180 185 190
78  gtc gtc gcc gcc acc gcc ctg gtc tgc ctg gcc ctg ctg ttc ttc 624
79  Val Val Gly Ala Thr His Leu Val Tyr Leu Arg Leu Leu Phe Phe Ile
80  195 200 205
81  gcc gcc gcc gcc acc gtc ctg gcc gcc gcc ctg gtc gcc gcc ttc acc 672
82  His Asp Arg Arg Lys Met Arg Pro Ala Arg Leu Val Pro Ala Val Ser
83  210 215 220
84  gcc gcc tgg acc ttc gcc gcc gcc gcc gcc gcc gcc gcc gcc gcc 720
85  His Asp Trp Thr Phe His Gly Pro Gly Ala Thr Gly Gln Ala Ala Ala
86  225 230 235 240
87  acc tgg gcc gcc gcc ttc gcc gcc gcc gcc gcc gcc gcc gcc gcc 768
88  Asn Trp Thr Ala Gly Phe Gly Arg Gly Pro Thr Pro Pro Ala Leu Val
89  245 250 255
90  gcc ttc gcc gcc gcc gcc gcc gcc gcc gcc gcc gcc gcc ctg ctg 816
91  Gly Ile Arg Pro Ala Gly Pro Gly Arg Gly Ala Arg Asn Leu Leu Val
92  260 265 270
93  ctg gaa gaa ttc acc acc gcc acc acc ctg tgc acc acc ttc ttc gcc 864
94  Leu Glu Glu Phe Lys Thr Glu Lys Arg Leu Cys Lys Met Phe Tyr Ala
95  275 280 285
96  gtc acc ctg ctg ttc ctg ctg ctg tgg gcc gcc ttc gtc gtc gcc gcc 912
97  Val Thr Leu Leu Phe Leu Leu Leu Trp Gly Pro Tyr Val Val Ala Ser
98  290 295 300
99  ttc ctg gcc gtc ctg gtc gcc gcc gcc gcc gtc gcc gcc ttc ctg 960
100 Tyr Leu Arg Val Leu Val Arg Pro Gly Ala Val Pro Gln Ala Tyr Leu
101 305 310 315 320
102 acc gcc ttc gtc tgg ctg acc ttc gcc gcc gcc gcc gcc ttc acc gcc 1008
103 Thr Ala Ser Val Trp Leu Thr Phe Ala Gln Ala Gly Ile Asn Pro Val
104 325 330 335
105 gtc ttc ttc ttc ttc acc acc gcc gcc ctg gcc gcc ttc ttc gcc gcc 1056
106 Val Cys Phe Leu Phe Asn Arg Glu Leu Arg Asp Cys Phe Arg Ala Glu
107 340 345 350
108 ttc gcc ttc ttc ttc gcc gcc gcc gcc gcc gcc gcc gcc gcc ttc 1104
109 Phe Pro Cys Cys Gln Ser Pro Arg Thr Thr Gln Ala Thr His Pro Cys
110 355 360 365
111 gcc ctg acc gcc att ggt tta tga 1128
112 Asp Leu Lys Gly Ile Gly Leu
113 370 375
114 <210> SEQ ID NO: 2
115 <211> LENGTH: 375
116 <212> TYPE: PRT
117 <213> ORGANISM: Homo sapiens

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/622,439

DATE: 12/27/2000

TIME: 13:41:01

Input Seq: A:\Y04-12-1.app

Output Seq: N:\CRF3\12272000\I622439.raw

135 <400> SEQUENCE: 2

```

136 Met Ala Asn Ala Ser Gln Pro Gly Gly Ser Gly Gly Gly Gln Ala Ala
137 1 5 10 15
139 Ala Leu Gly Leu Lys Leu Ala Phe Leu Ser Leu Leu Leu Cys Val Ser
140 20 25 30
142 Leu Ala Gly Asn Val Leu Phe Ala Leu Leu Ile Val Arg Gln Arg Ser
143 35 40 45
145 Leu His Arg Ala Pro Tyr Tyr Leu Leu Asp Leu Cys Leu Ala Asp
146 50 55 60
148 Gly Leu Arg Ala Leu Ala Cys Leu Pro Ala Val Met Leu Ala Ala Arg
149 65 70 75 80
151 Arg Ala Ala Ala Ala Ala Gly Ala Pro Pro Gly Ala Leu Gly Cys Lys
152 85 90 95
154 Leu Leu Ala Phe Leu Ala Ala Leu Phe Cys Phe His Ala Ala Phe Leu
155 100 105 110
157 Leu Leu Gly Val Gly Val Thr Arg Tyr Leu Ala Ile Ala His His Arg
158 115 120 125
160 Phe Tyr Ala Gln Arg Leu Ala Gly Trp Pro Cys Ala Ala Met Leu Val
161 130 135 140
163 Cys Ala Ala Trp Ala Leu Ala Leu Ala Ala Phe Pro Pro Val Leu
164 145 150 155 160
166 Asp Gly Gly Gly Asp Asp Gln Asp Ala Pro Cys Ala Leu Gln Gln Arg
167 165 170 175
169 Pro Asp Gly Ala Pro Gly Ala Leu Gly Phe Leu Leu Leu Leu Ala Val
170 180 185 190
172 Val Val Gly Ala Thr His Leu Val Tyr Leu Arg Leu Leu Phe Phe Ile
173 195 200 205
175 His Asp Arg Arg Lys Met Arg Pro Ala Arg Leu Val Pro Ala Val Ser
176 210 215 220
178 His Asp Trp Thr Phe His Gly Pro Gly Ala Thr Gly Gln Ala Ala Ala
179 225 230 235 240
181 Asn Trp Thr Ala Gly Phe Gly Arg Gly Pro Thr Pro Pro Ala Leu Val
182 245 250 255
184 Gly Ile Arg Pro Ala Gly Pro Gly Arg Gly Ala Arg Arg Leu Leu Val
185 260 265 270
187 Leu Gln Gln Phe Lys Thr Gln Lys Arg Leu Cys Lys Met Phe Tyr Ala
188 275 280 285
190 Val Thr Leu Leu Phe Leu Leu Leu Trp Gly Pro Tyr Val Val Ala Ser
191 290 295 300
193 Tyr Leu Arg Val Leu Val Arg Pro Gly Ala Val Pro Gln Ala Tyr Leu
194 305 310 315 320
196 Thr Ala Ser Val Trp Leu Thr Phe Ala Gln Ala Gly Ile Asn Pro Val
197 325 330 335
199 Val Cys Phe Leu Phe Asn Arg Gln Leu Arg Asp Cys Phe Arg Ala Gln
200 340 345 350
202 Phe Pro Cys Cys Gln Ser Pro Arg Thr Thr Gln Ala Thr His Pro Cys
203 355 360 365
205 Asp Leu Lys Gly Ile Gly Leu
206 370 375

```

RAW SEQUENCE LISTING

PARENT APPLICATION: US/09/622,439

DATE: 12/27/2000

TIME: 13:41:01

Input Set : A:\Y04-12-1.app

Output Set : N:\CRF3\12272000\I622439.raw

```

209 <210> SEQ ID NO: 3
210 <211> LENGTH: 1113
211 <212> TYPE: DNA
212 <213> ORGANISM: Homo sapiens
214 <214> FEATURE:
215 <215> NAME/KEY: CDS
216 <216> LOCATION: (1)..(1113)
217 <217> OTHER INFORMATION: SREB2
219 <100> SEQUENCE: 3
220 atg ggg aac tat agc cat gta gct gcc aac att ttg caa aat ctc tca 48
221 Met Ala Asn Tyr Ser His Ala Ala Asp Asn Ile Leu Gln Asn Leu Ser
222 1 5 10 15
223 cct cta aca gcc ttt ctg aca ctg act tcc ttg ggt ttc ata ata gga 96
224 Pro Leu Thr Ala Phe Leu Lys Leu Thr Ser Leu Gly Phe Ile Ile Gly
225 20 25 30
226 gtc aac gta gta gcc aac ctc ctg atc tca att ttg cta gta aaa gat 144
227 Val Ser Val Val Gly Asn Leu Leu Ile Ser Ile Leu Leu Val Lys Asp
228 35 40 45
229 aag acc ttg cat aca aca cct taa taa tta ctg ttg gat ctt tgc tat 192
230 Lys Thr Leu His Arg Ala Pro Thr Tyr Phe Leu Leu Asp Leu Cys Cys
231 50 55 60
232 tca gat atc ctc aga tct aca att tgt ttc cca ttt gta ttc aac tct 240
233 Ser Asp Ile Leu Arg Ser Ala Ile Cys Phe Pro Phe Val Phe Asn Ser
234 65 70 75 80
235 gtc aca aat gcc tcc acc tga act tat aca act ctg act tgc aaa gta 288
236 Val Lys Asn Gly Ser Thr Trp Thr Tyr Gly Thr Leu Thr Cys Lys Val
237 85 90 95
238 att gcc ttt ctg ggg att ttg tcc tgt ttc caa act gct ttc atg ctc 336
239 Ile Ala Phe Leu Gly Val Leu Ser Cys Phe His Thr Ala Phe Met Leu
240 100 105 110
241 ttc tgc atc aat gtc acc aga taa tta gct atc gcc cat caa cgc ttc 384
242 Phe Cys Ile Ser Val Thr Arg Tyr Leu Ala Ile Ala His His Arg Phe
243 115 120 125
244 tat aca aag agg ctg acc ttt tgg arg tgt ctg gct gta atc tat atg 432
245 Tyr Thr Lys Arg Leu Thr Phe Trp Thr Cys Leu Ala Val Ile Cys Met
246 130 135 140
247 atg tgg act ctg tct gta gcc atg gca ttt ccc ccg gtt tta gac gta 480
248 Val Trp Thr Leu Ser Val Ala Met Ala Phe Pro Pro Val Leu Asp Val
249 145 150 155 160
250 gcc act taa tca ttc att agc gag gaa gal caa tgc acc ttc caa caa 528
251 Gly Thr Tyr Ser Phe Ile Arg Gln Gln Asp Gln Cys Thr Phe Gln His
252 165 170 175
253 cgc tcc ttc agc act aat gat tcc tta gga ttt atg ctg ctt ctt gct 576
254 Arg Ser Phe Arg Ala Asn Asp Ser Leu Gly Phe Met Leu Leu Leu Ala
255 180 185 190
256 ctc atc ctc cta gcc aca cag att gtc taa ctc aag ctg ata ttt ttc 624
257 Leu Ile Leu Leu Ala Thr Gln Leu Val Tyr Leu Lys Leu Ile Phe Phe
258 195 200 205
259 gtc caa gat cga aga aaa atg aag cca gtc caa ttt gta gca gca gtc 672

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/622,439

DATE: 12/27/2000

TIME: 13:41:01

Input Set : A:\Y04-12-1.app

Output Set: N:\CRF3\12272000\1622439.raw

```

273 Val His Asp Arg Arg Lys Met Lys Pro Val Gln Phe Val Ala Ala Val
274      210      215      220
276 aac caa aac tgg act ttt cat ggt cct gga gcc agt ggc caa gca gct 720
277 Ser Gln Asn Trp Thr Phe His Gly Pro Gly Ala Ser Gly Gln Ala Ala
278 225      230      235      240
280 gcc aat tga cta gca gga ttt gaa gag ggt ccc aca cca ccc acc ttg 768
281 Ala Asn Trp Leu Ala Gly Phe Gly Arg Gly Pro Thr Pro Pro Phe Leu
282      245      250      255
284 ctg ggc atc aag gaa aat gca aac acc aca ggc aga aga aag cta ttg 816
285 Leu Gly Ile Arg Gln Asn Ala Asn Thr Thr Gly Arg Arg Arg Leu Leu
286      260      265      270
288 gtc tta gac gag ttc aaa atg gag aaa aga atc agc aap atg ttc taa 864
289 Val Leu Asp Glu Phe Lys Met Gln Lys Arg Ile Ser Arg Met Phe Tyr
290      275      280      285
292 ata atg act ttt ctg ttt cta acc ttg tgg ggc ccc tac ctg atg ggc 912
293 Ile Met Thr Phe Leu Phe Leu Thr Leu Trp Gly Pro Tyr Leu Val Ala
294      290      295      300
296 tgt taa tga aag gtt ttt gca aga gag cct ata cta cca gga gaa ttt 960
297 Cys Tyr Trp Arg Val Phe Ala Arg Gly Pro Val Val Pro Gly Gly Phe
298 305      310      315      320
300 cta aca gct gct atc tga atg aat ttt gcc caa gca gaa atc aat cct 1008
301 Leu Thr Ala Ala Val Trp Met Ser Phe Ala Gln Ala Gly Ile Asn Pro
302      325      330      335
304 ttt gtc tgc att ttc tca aac agg gag ctg aga cgc tgt ttc agc aca 1056
305 Phe Val Cys Ile Phe Ser Asn Arg Glu Leu Arg Arg Cys Phe Ser Thr
306      340      345      350
308 acc att att tac tgc aga aac tcc aag tta cca aag gaa cct tac tgt 1104
309 Thr Leu Leu Tyr Cys Arg Lys Ser Arg Leu Pro Arg Glu Pro Tyr Cys
310      355      360      365
312 gtt ata tga 1113
313 Val Ile
314      370
317 <210> SEQ ID NO: 4
318 <211> LENGTH: 370
319 <212> TYPE: PRT
320 <213> ORGANISM: Homo sapiens
322 <400> SEQUENCE: 4
323 Met Ala Asn Tyr Ser His Ala Ala Asp Asn Ile Leu Gln Asn Leu Ser
324      1      5      10      15
326 Pro Leu Thr Ala Phe Leu Lys Leu Thr Ser Leu Gly Phe Ile Ile Gly
327      20      25      30
329 Val Ser Val Val Gly Asn Leu Leu Ile Ser Ile Leu Leu Val Lys Asp
330      35      40      45
332 Lys Thr Leu His Arg Ala Pro Tyr Tyr Phe Leu Leu Asp Leu Cys Cys
333      50      55      60
335 Ser Asp Ile Leu Arg Ser Ala Ile Cys Phe Pro Phe Val Phe Asn Ser
336      65      70      75      80
338 Val Lys Asn Gly Ser Thr Trp Thr Tyr Gly Thr Leu Thr Cys Lys Val
339      85      90      95

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/622,439

DATE: 12/27/2000

TIME: 13:41:02

Input Set : A:\Y04-12-1.app

Output Set: N:\CRF3\12272000\I622439.raw

L:9 M:270 C: Current Application Number differs, Replaced Application Number
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date